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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,272	02/24/2004	Ulrich Wantig	71281	3886

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EXAMINER	
FINEMAN, LEE A	

ART UNIT	PAPER NUMBER
2872	

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/785,272	WANTIG ET AL.	
	Examiner	Art Unit	
	Joshua L. Pritchett	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *2/24/06 & 11/29/05* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to Amendment filed June 21, 2006. Claims 1-9, 14-17, 20 and 21 have been amended as requested by the applicant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 4-6, 8, 14-15, 17, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pampus GB 2 012 217 in view of Pratt, US 4,848,886.

Regarding claims 1 and 5, Pampus discloses a snorkel device for a submarine having a pressure hull (page 1 lines 5-13) wherein the snorkel device comprises: a telescopically movable snorkel tube including a telescopically movable structure connected to an outside of the pressure hull for extending and retracting an end thereof (Fig. 1; page 1 lies 50-55); an optical observation means connected to the snorkel tube, for above-water observation during submarine travel at periscope depth, wherein the optical observation means is formed as a compact unit which comprises an opticronics unit (page 1 lines 70-75). Pampus discloses the claimed invention except for wherein the compact unit of optical observation means comprises an optronics unit; and all of the compact units include short-travel drives, which are hydraulic cylinder drives. Pratt teaches a periscope device (1) for a submarine (3) including an optical observation means (39,

see fig. 2) connected to the periscope mast/tube (16), wherein the optical observation means is formed as a compact unit (fig. 2) that comprises an optronics unit (in 39, column 3, lines 17-20) and a short-travel drive (10-14) which is a hydraulic cylinder drive (column 3, lines 22-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the optical observation means compact unit in the snorkel device of Pampus with that of Pratt to provide a various (e.g., 360-degree) observation when the submarine is submerged close below the water line (Pratt, column 1, lines 7-10). Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add short travel drives of Pratt to the other compact units of Pampus to provide better operating efficiency and space utilization (Pratt, column 1, line 35) and protection for the compact units.

Regarding claims 2, 4, 6, 8, 15 and 17, Pampus further disclose wherein the optical observation means compact unit and the further compact unit are provided on an inner or outer side of the snorkel tube (page 1 lines 50-60); the snorkel tube itself being at least partly designed in a streamlined manner (Fig. 1).

Regarding claims 20 and 21, Pampus discloses in a snorkel device for a submarine, the device comprising: a movable snorkel tube (3a) movably connected to the submarine (figs. 1 and 2) and movable away from the submarine (fig. 1 vs. fig. 2), the snorkel tube mounted outside of the pressure space (Fig. 1); at least one stationary tube (3b) located within the snorkel tube in a non-operating position; a vertical guide rail (side wall of tube 3b); a rail connected to bottom of the snorkel tube (tapered portion of sliding tube 3a), the rail slidably mounted to the vertical guiding rail (Fig. 1); a driving means for engaging the rail, the rail telescopically extending the snorkel but relative to the at least one stationary tube to an operating position (page 1 lines 20-

33); an optical device (12) connected to said snorkel tube (fig. 1); and a communication arrangement (col. 1 lines 15-20) connected to said snorkel tube. Pampus discloses the claimed invention except for said optical device connected in a retracted position and including a communication device, an optronics short-travel drive connected to said snorkel tube and an optronics unit for above-water observation during snorkeling travel at periscope depth of the submarine, said optronics short-travel drive moving said optronics unit vertically relative to said snorkel tube to an extended position with said optronics unit arranged beyond an end of said snorkel tube; and the communication arrangement connected in another retracted position and including a communications short-travel drive connected to said snorkel tube, said communications short-travel drive moving said communications unit vertically relative to said snorkel tube to another extended position with said communications unit arranged beyond said end of said snorkel tube. Pratt teaches a periscope device (1) for a submarine (3) including an optical device (39, see fig. 2) connected to the periscope tube (16) in a retracted position (fig. 1), a communication arrangement including an communications unit for above-water communication during snorkeling travel at periscope depth of the submarine (col. 1 lines 45-50). said optical device including an optronics short-travel drive (10-14) connected to said periscope tube (16) and an optronics unit (in 39, column 3, lines 17-20) for above-water observation during snorkeling travel at periscope depth of the submarine (Pratt, column 1, lines 7-10), said optronics short-travel drive moving said optronics unit vertically relative to said periscope tube to an extended position with said optronics unit arranged beyond an end of said snorkel tube (column 3, lines 22-30) from a retracted position within the periscope tube (fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the

optical unit in the snorkel device of Pampus with that of Pratt to provide a various (e.g., 360-degree) observation when the submarine is submerged close below the water line (Pratt, column 1, lines 7-10). Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add short travel drives of Pratt to the other compact units of Pampus to provide better operating efficiency and space utilization (Pratt, column 1, line 35) and protection for the compact units. Therefore, said communications short-travel drive will move said communications unit relative to said snorkel tube to another extend position with said communications unit arranged beyond said end of said snorkel tube from a retracted position within the snorkel tube.

Claims 3, 7, 9-13, 16 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pampus in view of Pratt as applied to claims 1, 2, 4, 5 and 17 above, and further in view of Wäntig et al., DE 3637618 A1.

Regarding claims 3 and 7, Pampus in view of Pratt as applied to claim 2, disclose wherein some compact units (see 6, left side of fig. 6) are provided on the outside of the snorkel tube. However Woodland in view of Pratt as applied to claim 2 do not disclose a common, streamlined casing is arranged around the snorkel tube and the compact units. Wäntig et al. teach in figs. 1-4, a compact unit (antenna) provided on the outside of the snorkel tube (abstract); a common, streamlined casing (1) is arranged around the snorkel tube and the compact units. It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a streamlined casing around the outside units as suggested by Wäntig et al. to provide a more aerodynamic structure.

Regarding claims 9-13, 16 and 18-19, Pampus in view of Pratt as applied to claims 1, 2, 4, 5 and 17 above and Pampus in view of Pratt and Wäntig et al. as applied to claims 3 and 7 above disclose the claimed invention except for explicitly stating wherein the communication means includes a radio unit for HF, VHF, UHF or UHF-satcom radio communication or a combination thereof. Wäntig et al. further teach use of a UHF or VHF radio (Derwent abstract USE/ADVANTAGE). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the communication unit be a radio unit for UHF or VHF as suggested by Wäntig et al. as it is a reliable, commonly available radio unit.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pampus in view of Pratt as applied to claim 1 above, and further in view of Woodland US 6,269,763 B1.

Pampus in view of Pratt as applied to claim 1 above disclose the claimed invention expect for explicitly stating an information means including GPS or ESM unit. Woodland teaches a snorkel device (2.0) for a submarine including a GPS and ESM unit (column 9, lines 41-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the Woodland GPS system with the Pampus in view Pratt invention for the purpose of allowing the submarine operator to determine the precise location of the submarine using longitude and latitude.

Response to Arguments

Applicant's arguments, see Amendment, filed June 21, 2006, with respect to the rejection(s) of claim(s) 1 under Woodland have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration of the newly amended claim, a new ground(s) of rejection is made in view of Pampus. Applicant amended the claim language to include a telescopically extending snorkel tube. The Pampus reference has been added to teach the newly claimed limitation.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L. Pritchett whose telephone number is 571-272-2318. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joshua L Pritchett
Examiner
Art Unit 2872

DREW A. DUNN
SUPERVISORY PATENT EXAMINER